Dear Professor Paul Cohen:
Math Dept Stanford U 94305 4 Jan 73

Every few months I say to myself, why haven't I gone to see Paul Cohen and have a good long talk with him about questions of mutual interest? Now I am taking the bull by the horns and writing to ask if there is any possibility you would be free for me to visit you at Stanford Saturday, February 10. I have made plane reservations coming and going in hopes that I might find this time available for you. I'm winding up twenty years' involvement with gravitation physics and relativity with the conclusion that the mystery of things lies still deeper, in the quantum principle; that the quantum principle is connected in some deep sense with logic and the calculus of propositions; that the structure of the universe is connected with our own existence in some deep Leibnizian sense; and that only when we recognize how strange the universe is will we be able to understand how simple it is. I have no special axe to grind. I am simply in search of deeper understanding. I can't help feeling that the marvelous things you have done must have some much deeper connection with the issues that puzzle me than most physicists would recognize. There was a time when the parallel axiom of Euclid seemed to be "merely a matter of logic". Then came Bolyai and Lobachevsky. Then came Riemann who opened the door to Einstein and general relativity, with the most direct possible tie to physics. Similarly today, so many people think the questions of undecidability are "merely matters of logic". But the good Lord, I'm afraid, didn't have the benefits of the modern university business office, with precise allocations of so much to physics, so much to mathematics, and so much to philosophy. I'm afraid he got everything all mixed up together. At any rate, it may be that the questions we face are beyond the mere specialist! That's why I would welcome so much the chance to talk with you! I will have all day Saturday free and can meet you when and where you say. Every good wish!

We later met in Washington

2. Current Status of Mathematical Research

During the past two decades, under the stimulus of an intelligently conceived and administered policy of Federal support to mathematics led by the NSF, American mathematics has led the international mathematical community in a burst of mathematical development which has made this one of the golden periods of the long history of mathematics. Many of the great classical problems of nineteenth and early twentieth century mathematics have been solved (the generalized Poincaré conjecture, the continuum hypothesis, the Lusin conjecture on convergence of Fourier series, the solvability of finite groups of odd order, the triangulation problem for topological manifolds, many of the Hilbert problems, and many others). The technical power displayed in the solution of these

Game theory and mathematical economics
Mathematical physics, especially mathematical foundations of axiomatic field theory, theory of singularities in general relativity, and statistical mechanics
Mathematical biology
Mathematical statistics

From the point of view of its ongoing progress, the perspective in the development of the mathematical sciences is one of new and dramatic advances in many areas of the basic core of research mathematics and of a broadened and intensified effort to apply the power of conceptual advances in both old and new fields of application to various disciplines in the physical, biological, and social sciences. We believe that it is vital to exploit and extend this interaction between branches of pure and applied mathematics and between mathematics and the other sciences.

The quality of mathematics teaching is intimately related to research support. During the early thirties, there were only a few institutions where much mathematical research of high calibre was carried out. The ensuing forty years have brought marked improvements in the lev